

Claims

[c1] **What is claimed is:**

1. An engine driven welder-type device comprising:
an engine;
a mechanical to electrical power converter connected to
the engine and configured to generate a power signal
suitable for welding processes; and
an accessory outlet having a generally uniform power
output from engine idle speed through high speed oper-
ation of the engine.

[c2] 2. The engine driven welder-type device of claim 1 fur-
ther comprising an accessory connected to the accessory
outlet, the accessory operable at all engine speeds.

[c3] 3. The engine driven welder-type device of claim 2
wherein the accessory includes at least one of a light ar-
ray, a saw, a grinder, and a drill.

[c4] 4. The engine driven welder-type device of claim 3
wherein the light array further comprises at least one of
a plurality of LEDs, a halogen light bulb, and a fluores-
cent light bulb.

- [c5] 5.The engine driven welder-type device of claim 1 wherein the generally uniform power output is one of a DC signal and an AC signal, the AC signal having a frequency of approximately 60 Hz.
- [c6] 6.The engine driven welder-type device of claim 1 further comprising at least one of a rectifier and an inverter connected between the power converter and the accessory outlet.
- [c7] 7.The engine driven welder-type device of claim 6 wherein the power converter further comprises a first winding configured to generate the power signal suitable for welding and a second winding configured to generate the accessory outlet generally uniform power output.
- [c8] 8.The engine driven welder-type device of claim 1 further comprising a battery electrically coupled to the accessory outlet and at least one of an alternator connected to the engine and the power converter.
- [c9] 9.The engine driven welder-type device of claim 1 further comprising a torch electrically connectable to the power converter.
- [c10] 10.An engine driven welder/generator assembly comprising:
 - an engine;

a power converter connected to the engine and configured to generate sufficient electrical power suitable for welding; and

a power conditioner configured to provide a generally uniform power signal independent of engine speed.

- [c11] 11. The engine driven welder/generator assembly of claim 10 wherein the power conditioner is at least one of a battery, an inverter, and a rectifier.
- [c12] 12. The engine driven welder/generator assembly of claim 11 wherein a battery is powered by at least one of an alternator attached to the engine and the power converter.
- [c13] 13. The engine driven welder/generator assembly of claim 10 wherein the power conditioner is powered by at least one of the engine and the power converter.
- [c14] 14. The engine driven welder/generator assembly of claim 10 wherein the uniform power signal has a relatively consistent frequency of 60 Hz across varying engine speeds.
- [c15] 15. The engine driven welder/generator assembly of claim 10 further comprising a battery connected to start the engine and wherein the power converter further comprises a generator having a first winding configured

to generate the electrical power suitable for welding and a second winding configured to maintain a charge on the battery.

- [c16] 16. The engine driven welder/generator assembly of claim 15 further comprising an accessory output powered by the first winding and another accessory output powered by the second winding.
- [c17] 17. The engine driven welder/generator assembly of claim 10 wherein the power conditioner includes an outlet having sufficient power output to operate at least one of a job site light, a saw, a drill, and a grinder.
- [c18] 18. A method of powering an accessory comprising the steps of:
 - generating an electrical power signal from an engine driven welder/generator assembly;
 - generating a weld power from the electrical power signal; and
 - generating a relatively uniform auxiliary power signal across variable engine speeds.
- [c19] 19. The method of claim 18 further comprising charging a battery from the electrical power signal and wherein the battery generates the relatively uniform auxiliary power signal.

- [c20] 20.The method of claim 18 further comprising the step of converting a first portion of the electrical power signal into a weld power and converting a second portion of the electrical power signal into the relatively uniform auxiliary power signal.
- [c21] 21.The method of claim 20 wherein the step of converting a second portion of the electrical power further comprises at least one of rectifying and inverting the electrical power signal.
- [c22] 22.The method of claim 18 wherein the step of generating a relatively uniform auxiliary power signal further comprises delivering at least one of a relatively constant voltage and a relatively constant frequency to an auxiliary outlet.
- [c23] 23.The method of claim 18 further comprising generating another relatively uniform auxiliary power signal at weld power generating engine speeds.
- [c24] 24.The method of claim 23 further comprising delivering a second relatively uniform auxiliary power signal.
- [c25] 25.The method of claim 18 further comprising powering an auxiliary device with the relatively uniform auxiliary power signal.

- [c26] 26.The method of claim 18 further comprising illuminating a worksite with the relatively uniform auxiliary power signal independent of engine speed.
- [c27] 27.A welding-type apparatus comprising:
 - an engine constructed to generate mechanical power;
 - means for converting the mechanical power to electrical power suitable for welding applications; and
 - means for providing a relatively constant power signal independent of engine operating speed.
- [c28] 28.The welding-type apparatus of claim 27 further comprising means for storing energy generated by the engine and power the constant power signal means.
- [c29] 29.The welding-type apparatus of claim 28 wherein the converting means further comprises means for generating electrical power suitable for powering accessories during above idle engine operating speeds.
- [c30] 30.The welding-type apparatus of claim 27 further comprising means for illuminating a work area powered by the relatively constant power signal means.
- [c31] 31.The apparatus of claim 27 wherein the means for illuminating a work area is at least one of a plurality of light emitting diodes, a fluorescent light, and a halogen light.

